EXPLANATION OF PLATE. Psylla floccosa, new species.

- 1. Fore wing.
- 2. Hind wing.
- 3. Genital segment of female.
- 4, 5, 6. Details of foregoing.
- 7. Genital segments of male.
- 8, 9, 10. Details of foregoing.
 - 11. Front leg.
 - 12. Second leg.
 - 13. Showing ventral spur at base of third leg.
 - 14. Third leg, showing tibial and tarsal spurs.
 - 15. Head of male.
- 16. Head of female.
- 17. Nymphs in flocculent mass on terminal leaves of $Alnus\ incana,$ June 10, 1909.

NEW PSEUDOSCORPIONIDA.

BY NATHAN BANKS, EAST FALLS CHURCH, VA.

In the Canadian Entomologist for 1891, pp. 161-166, and 1893, pp. 64-67, I described a number of these small Arachnids, and in the Journ. N. Y. Ent. Soc., 1895, pp. 1-13, I presented a review of the forms then known from North America. Since then many specimens and species have been collected, and in these pages ten of the new forms are characterized, and a new genus erected for a form near *Garypus*.

Chelifer fuscipes, n. sp.—Cephalothorax and palpi dark brown, fingers more reddish, dorsum of abdomen brown, with a broad pale median stripe, legs brown, paler at tips of some of the joints. Cephalothorax subtriangular, minutely granulate, with a few short, nearly clavate hairs; eyes distinct. Palpi with fine short subclavate hairs, except on fingers, hand and outer side of the tibia, which are simple; trochanters with distinct tubercle behind, femora a little longer than cephalothorax, subpedicellate, largest at middle; tibiæ about as long as femur, pedicellate, evenly convex both sides, but a little broader than femur; hand barely longer than tibiæ, about twice as broad as femur, fingers shorter than hand, stout, curved. Dorsal abdominal scuta finely granulate, outer side very distinctly prolonged behind into acute spines.

Length, 1.8 mm.

From Claremont, Calif. (Baker).

September, 1909

Chelifer persimilis, n. sp.—This is extremely similar to C. cancroides. The male differs at once from C. cancroides by having the margins of the abdominal segments more strongly produced behind, and almost all of the segments are so produced (while in C. cancroides only a few of the basal segments are produced, and these not half as much). The palpus is similar to that of C. cancroides, but the tibia is more swollen on the inner margin, and the hand is heavier and the fingers slightly shorter and more curved. It is of the same size and coloration.

Specimens from Pecos, New Mexico (Cockerell); Las Vegas, New Mexico (Cockerell); Eagle Spring, Organ Mts., New Mexico, and Roswell, New Mexico, Aug. (Cockerell).

Chelanops partitus, n. sp.—Cephalothorax and palpi red-brown, former paler behind. Cephalothorax fully one and a-half times as long as broad; surface closely and minutely granulate, and with many short, clavate hairs. Trochanter strongly bigibbose behind; femur fully as long as width of the cephalothorax, slightly concave in front near the tip; tibia one and a-half times broader than the femur, evenly convex on outer side, inner side rather suddenly swollen and slightly tapering beyond; claw longer than the cephalothorax, hand about twice as broad as femur, hardly as long as tibia, tapering to the stout curved fingers, which are fully as long as hand; fingers with fine simple hairs, rest of palpus with short clavate hairs. Legs with short almost clavate hairs. Abdominal scutze each with about eight clavate hairs on the posterior border.

Length, 3 to 3.5 mm.

From Pt. Yuma, Arizona. Related to C. Arizonensis, but not as darkly coloured, smaller, and the fingers are plainly longer than the hand.

Chelanops diversus, n. sp.—Cephalothorax dark brown, palpi dark red-brown, body and legs paler, scutte brown, but the basal three are only brown near the middle. Cephalothorax barely longer than broad, densely granulate, with extremely short, almost clavate hairs; groove behind the middle, its ends curving forward. Palpi not as long as body, very heavy; femur rather broadest near base, as long as width of cephalothorax; tibia almost as long as femur, outer side evenly convex, inner side suddenly swollen and then nearly straight, barely broader than the femur; claw longer than cephalothorax and mandibles, hand very broad, about twice as broad as femur, broadest at base and tapering to the fingers, which are barely longer than width of hand, all with short fine hairs, those on femur and tibia almost clavate. Legs with short, simple hairs. Abdomen rather

elongate, with some clavate hairs on the sides, about eight on the hind border of each scutum.

Length, 2 to 2.2 mm.

From Lake Worth and Palm Beach, Florida.

Garypus Californicus, n. sp.—Cephalothorax dark brown, behind showing a pair of pale submedian spots, dorsal scutæ brownish, paler in middle, and each with a central dark brown dot; palpi yellowish, the hand more red-brown. Cephalothorax subtriangular, emarginate in front, fully as long as broad behind, with two large eyes close together, the hind one looking backward. Femur of palpus plainly longer than cephalothorax, but little widened apically, tibia much shorter, but plainly broader, scarcely convex on middle of inner side, claw large and long, the hand barely shorter than tibia, but nearly twice as wide, being convex on inner base, outer side slightly and evenly convex, fingers plainly longer than hand, strongly curved; all clothed with fine, short, simple hairs, some at base of fingers much longer; hairs on posterior margin of abdominal scutæ almost invisible. Legs long and slender, with fine, simple hairs; trochanters visible on legs iii and iv. Ventral scutæ also each with a central dark dot.

Length, 4.5 mm.

Two specimens from Palo Alto, Calif., and San Nicolas Island, Calif.

GARYOPS, n. gen.

In appearance similar to *Garypus*. The serrula attached to mandibles; the cephalothorax narrowed in front, and a pair of tuberosities each side, but no eyes on them. The femora of all legs show the trochantins distinctly separated, as plain in femur i as the others; no apparent transverse groove on cephalothorax; mandibles small, a distinct bifurcate stylet; coxæ of pedipalpi prolonged on median line in front. Dorsal scutæ of abdomen not plainly divided; coxæ i and ii do not meet on the middle line, and coxæ i barely touch each other at one point.

Garyops depressa, n. sp.—Pale yellowish, anterior part of cephalothorax and the palpi red-brown. Cephalothorax about two-thirds as wide in front as behind, constricted at anterior third, and here above is a black mark or slight tubercle, posterior border of cephalothorax prolonged to a median point, which indents the basal abdominal segments, its surface smooth. Palpi nearly as long as body, not very heavy, the trochanter large, with a prominent corner at base behind; femur about as long as cephalothorax, suddenly swollen, broadest at base; tibia shorter than the femur, not much swollen on inner side; claw longer than femur, hand

about as long as tibia, but little broader, broadest near base, fingers not near as long as hand, quite strongly curved, and darker than hand, all parts with fine simple hairs, about one-half the width of the joints, except some at the base of the fingers. Abdomen moderately broad, flat, the sette not distinctly divided, but apparently some of the posterior ones are divided

Length, 2.5 mm.

Punta Gorda, Florida (Mrs. A. T. Slosson).

Ideobisium tibiale, n. sp.—Cephalothorax and palpi red-brown, rest of body and legs pale. Cephalothorax a little longer than broad, rather broader behind than in front, surface smooth, with a few long bristles, anterior margin rather prominent in the middle, two eyes each side, about one-half their diameter apart; mandibles large, with a few long hairs, stylet slender, trifid at tip. Palpi quite long; trochanter nearly twice as long as broad, sides subparallel; femur plainly longer than the cephalothorax, enlarging from base to tip; tibia distinctly shorter than femur, long pedicellate, but one and a-fourth broader than femur, inner side but little swollen; hand as long as femur, not twice as broad as tibia, but little swollen, mostly on inner side, fingers plainly shorter than hand, stout and but little curved; all with long simple hairs. Abdomen not very elongate, scuta smooth, with a few simple hairs; femora i and ii divided, basal part longer than apical part; femora iii and iv showing trochantins distinct.

Length, 4.2 mm.

From Florissant, Colo., 8,000 feet.

Ideobisium magnum, n. sp.—Cephalothorax and palpi dark redbrown, dorsal scutæ brown, rest of body and legs pale. Cephalothorax smooth, about as broad as long, a rounded tubercle in middle of front margin, eyes large, less than one-half their diameter apart, a few pale spots each side on the posterior part of the cephalothorax; mandibles large, with a few long hairs, stylet slender, with an outer branch toward tip, the latter bifid. Trochanter of palpus concave behind; femur subpedicellate, hardly as long as the cephalothorax plus the mandibles, as broad at middle as at tip; tibia plainly shorter than femur, strongly pedicellate, inner side suddenly swollen and then straight; hand large, as long as tibia, and about twice as broad, tapering to the stout fingers, which are plainly a little shorter than the hand; all parts with fine simple hairs.

Dorsal scuta smooth, with a few simple hairs. Legs long, femora i and ii divided beyond middle, tibia iy longer than the cephalothorax.

Length, 6.5 mm.

From Mt. Shasta, Calif. (Lembert). It is our largest species.

Olpium frontalis, n. sp.—Pale yellowish-brown, palpi darker yellow-brown, rest of body and legs pale. Cephalothorax about one and a-fourth times as long as broad, more than twice as broad behind as in front, surface nearly smooth, with a few very short simple hairs, two distinct eyes each side touching each other. Mandibles small; stylet rather long, simple, and with an out-turned tip. Trochanter of palpus convex in front, concave behind; femur not as long as cephalothorax, broadest beyond middle, granulate in front; tibia plainly shorter than femur, but plainly broader, both sides rather evenly convex; claw large and heavy, hand about as long as femur and twice as broad, sides subparallel, but rather broadest near the base, fingers stout, two-thirds of length of hand; all with short simple hairs, except four long ones at base of fingers. Abdomen elongate; posterior scuta divided, with a few short simple hairs. Legs i and ii divided in middle, trochanters distinct on hind legs.

Length, 3.5 mm.

Las Vegas, N. Mex. (Cockerell).

Obisium transversum, n. sp.-Pale yellowish on the cephalothorax and palpi, rest of body and the legs paler. Cephalothorax one and a-half times as long as broad, surface smooth, slightly narrowed in front of eyes, the front margin slightly convex; behind the middle is a distinct transverse furrow, with its ends slightly curving forward, two distinct eyes each side; mandibles large, more than one-half as long as the cephalothorax, no stylet. Femur of palpus hardly as long as the cephalothorax, barely broader in the middle; tibia a little shorter than the femur, but broader, outer side near base is slightly concave, inner side rather suddenly swollen and then nearly straight; claw as long as cephalothorax plus mandibles, about twice as broad as femur, the hand very broad near base, tapering each side to the fingers, which are stout, slightly curved and as long as hand; all with fine simple hairs, many of them very long. Legs short, with simple hairs, anterior tips of coxæ i and ii with a distinct tooth. Abdomen (9) about two and a half times as long as cephalothorax; the segments smooth.

Length, 2 mm.

From Pecos, New Mexico (Cockerell).